CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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1. The Norfolk system of crop rotation was applied to practically all Czechoslovak agricultural land. The only exceptions were in eastern Slovakia, including the area east of Presov (N 49-00, E 21-15) and the Michalovce (N 48-45, E 21-56) and Secovce (N 48-42, E 21-39) areas. In these areas the obsolete three-field type of crop rotation was used, i.e., barley or oats on the first field, wheat or rye on the second field, and a root crop on the third field. Alfalfa and clover were also cultivated, but on a small scale only. Obsolete methods were still in use because these areas were poor and backward since the soil there was less fertile than the majority of agricultural land in Czechoslovakia.

2. The Norfolk system of crop rotation applied in Czechoslovakia was the classical Norfolk type; i.e., barley, oats, or spring wheat for the first field; clover for the second field; wheat or rye for the third field; and potatoes, sugar beets, fodder beets, and sometimes maize for the fourth field. Alfalfa was also cultivated in Czechoslovakia but was not included in the rotation system. It was cultivated for four to eight, and sometimes as long as eleven years, on acreage apart from that used for crop rotation. Actually, the Norfolk rotation pattern was usually modified according to the individuality of a particular farmer. During recent years modifications were necessary because of the Government Plan for Delivery of Agricultural Products, instability of ownership of agricultural land, and other government measures.

3. Dr. Ing. Simon (fnu)[1], a member of the Research Institute for Plant Development in Brno-Pisarky and, since 1950, a professor at the Agricultural Institute in Brno, published new crop-rotation systems. His articles appeared in various agricultural publications from 1948 through 1950. The systems were based partly on his scientific observations and partly on the studies of V. R. Vilyams, a Soviet scientist. Simon's rotation systems were intended to increase the natural fertility of the soil by increasing, without the addition

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of artificial fertilizers, the amount of humus in the soil and thus increasing its bacterial activity. The systems proposed increasing humus and nitrogen content by the regular planting of alfalfa-grass mixtures and clover-grass mixtures which, until that time, had been very rarely included in rotation practices.

4. Simon's rotation systems included five different rotation patterns. There was one pattern for each acreage from seven to eleven fields. Simon proposed the use of the nine-field rotation pattern in sugar-beet areas, the ten-field and sometimes the eleven-field pattern in maize areas, the seven-field or occasionally the eight-field pattern in potato areas, and the seven-field or very rarely the eight-field pattern in high-altitude areas. All agricultural land in Czechoslovakia was included in one of the four above-mentioned areas. These area divisions were a result of the geonomic survey which had been conducted during 1946 - 1948.

5. The nine-field pattern for sugar-beet areas was the most significant system. The total acreage of a farm was to be divided into nine areas and a particular crop was to be planted in each area, the crop varying from year to year in the following order: alfalfa-grass mixture the first year (two-thirds alfalfa and one-third grass mixture, such as trisetum flavescens and dactylis glomerata); second year the same as the first; wheat or rye the third year; sugar beets the fourth year; barley the fifth year; a mixed crop consisting of meslin and a special commertial crop such as poppies, a vegetable, rape, etc., the sixth year; wheat or rye the seventh year; sugar beets the eighth year; barley with alfalfa-grass mixture the ninth year. Barley and alfalfa-grass mixture were to be sown in March. The barley was to be harvested in the summer, the field producing no other crop that year. The field was not to be plowed and, during the next two years, which actually were the first and second years of the rotation pattern, the alfalfa-grass mixture was to be used for fodder.

6. The eight-field rotation pattern was as follows: clover-grass mixture the first year; second year the same as the first; wheat or rye the third year; a root crop, mainly potatoes, the fourth year; barley or oats the fifth year; rye or wheat the sixth year; a root crop the seventh year; barley or oats and wheat or rye along with clover-grass mixture the eighth year.

7. In addition to appearing in various agricultural publications, Simon's rotation systems were included in the instructions dealing with the Agricultural Land Adjustment Program (Hospodarsko-technicka uprava pudy - HTUP). This program was started about 1950 and continued until the end of 1952. The purpose of the program was to assemble the fields of an individual Unified Agricultural Cooperative (JZD) into the best possible acreage complex and to remove all field boundaries within this complex. This applied to cooperatives of the third, fourth, and, occasionally, the second type.[2] The program was also to establish new crop-planting plans for the cooperatives. These plans were to be based on a regular crop-rotation system and were to comply with the Government Plan for Delivery of Agricultural Products for that particular community. Simon's rotation systems were adopted by the personnel in charge of the Agricultural Land Adjustment Program; however, source believes that the acceptance of Simon's systems was merely a matter of practice and not the result of authoritative policy.

8. The Agricultural Land Adjustment Program was not applied to the state farms. Exchange of fields occurred between cooperatives and the local state farm only when such exchange appeared to be necessary as a result of the Adjustment Program for the cooperative. The state farms applied Simon's rotation patterns only on rare occasions and then with modifications. Extensive application of Simon's rotation systems on state

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farms was impossible because of their special position in the Czechoslovak national agricultural setup which made the tasks of individual state farms vary from one year to another.[3] These continuing changes in production tasks were incompatible with the stability of crop arrangement required by the crop-rotation systems.

9. The application of Simon's rotation systems was impossible on private farms because of the general situation of private farming in Czechoslovakia caused by the policy of the régime.

10. The application of Simon's rotation systems to cooperatives never progressed beyond the initial stages. In fact, the patterns were completely abandoned during 1953. The main reasons for the failure of the systems in actual practice were as follows:

a. The Government Plan for Delivery of Agricultural Products altered production requirements during the course of the years, thus depriving the cooperatives of the necessary stability for applying the rigid rotation patterns. Even a flexible application of the patterns was impossible because of the lack of qualified personnel to make the necessary adjustments.

b. There was a shortage of alfalfa, clover, and grass seeds.

c. It was common practice in Czechoslovakia to sow the one-year type of red clover and, therefore, this type was used in sowing the clover-grass mixtures instead of the hardier two-year type of red clover prescribed by the rotation systems. Consequently, the clover froze during the second year.

d. The ratio of various alfalfa-grass mixtures and clover-grass mixtures had not been adequately tested previously. The mixtures were not suitable for the composition of the soil and special weather conditions in individual areas. This resulted in harvests of the clover-grass mixtures and the alfalfa-grass mixtures which were smaller than the harvests of pure alfalfa and pure clover. In addition to the unsatisfactory economic results, this fact was very discouraging to the local agricultural population.

e. The Agricultural Land Adjustment Program was, in many areas, carried out by completely unqualified personnel and, therefore, it could not serve as a real basis for application of the rotation systems.

11. By 1954 Simon's rotation systems were no longer practiced in agriculture. Agricultural scientific circles continued to refer to the systems as a possible way of improving agricultural production procedures, but the systems would require thorough research and adequate testing before practical application.

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1. [redacted] Comment. According to the Czechoslovak press, Prof. Dr. Ing. Simon was elected to the National Assembly for the Mikulov (N 50-41, E 13-43) district in the November 1954 elections.

2. [redacted] further information concerning types of cooperatives.

3. [redacted]

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